WHAT IS CLAIMED IS:

1. A method for producing a plurality of labeled deoxyribonucleotides from an initial nucleic acid sample, said method comprising:

(a) selectively attaching polyA+ RNAs in said initial nucleic acid sample to a solid support(s) to produce a solid support bound polyA+ RNA fraction of said initial nucleic acid sample;

(b) combining a plurality of gene-specific primers with said support bound polyA+ RNA fraction to anneal said plurality of gene-specific primers to complementary support bound polyA+ RNAs of said support bound polyA+ RNA fraction;

(c) initiating synthesis of labeled nucleic acids from said annealed gene-specific primers to produce a population of labeled nucleic acids annealed to said support bound polyA+ RNA fraction; and

(d) removing said labeled nucleic acids from said support bound polyA+ RNA fraction to produce said plurality of labeled deoxyribonucleotides.

2. The method of claim 1, wherein said selectively attaching step (a) comprises:

(i) contacting said initial nucleic acid sample with an oligo-dT/biotin ligand to produce oligo-dT/biotin ligand/polyA+ RNA complexes; and

(ii) capturing said oligo-dT/biotin ligand/polyA+ RNA complexes on a strept/avidin comprising solid support to produce said solid support bound polyA+ RNA fraction.

3. The method of claim 1, wherein said solid support(s) is selected from the group consisting of reaction vials, membranes, beads and bead-like structures.

4. The method of claim 3, wherein said reaction vials are selected from the group consisting of glass vials, polypropylene vials, and plastic vials .

5. The method of claim 3, wherein said membranes are selected from the group consisting of nylon membranes and nitrocellulose membranes.

6. The method of claim 3, wherein said beads and bead-like structures are selected from the group consisting of magnetic beads, glass beads, dextran, sephadex, sepharose, and cellulose.

7. The method of claim 1, wherein said initial nucleic acid sample is selected from the group consisting of a cell extract and tissue extract.

8. The method of claim 1, wherein said method further comprises contacting said plurality of labeled deoxyribonucleotides with an array of nucleic acid fragments.

9. A kit for synthesizing a plurality of labeled deoxyribonucleotides from an initial nucleic acid sample, said kit comprising:

a solid support(s);

a ligand; and

a plurality of gene specific primers.

10. The kit according to claim 9, wherein said said solid support(s) is selected from the group consisting of reaction vials, membranes, beads and bead-like structures.

11. The kit according to claim 10, wherein said reaction vials are selected from the group consisting of glass vials, polypropylene vials, and plastic vials .

12. The kit according to claim 10, wherein said membranes are selected from the group consisting of nylon membranes and nitrocellulose membranes.

13. The kit according to claim 10, wherein said beads and bead-like structures are selected from the group consisting of magnetic beads, glass beads, dextran, sephadex, sepharose, and cellulose.

14. The kit according to Claim 9, wherein said ligand is an oligo-dT/biotin ligand.

15. The kit of claim 14, further comprising labeled dNTPs.